

ABSTRACT OF THE DISCLOSURE

In this application, the invention is a novel
5 heuristic mechanism of working path and backup path
reservation for highly utilizable WDM mesh networks,
which we call dynamic-network adapted cost selection
(DAC-selection) mechanism. One of its characteristics
is simple traffic distribution mechanism, and the
10 performance of DAC-selection mechanism is superior to
that of Random selection (R-selection) and Advanced
Combined Min-cost selection (ACM-selection) mechanism.
DAC-selection mechanism provides simple cost function
by assigning proper weights to each component of the
15 cost function and the total cost is obtained by just
summing up the individual cost. Therefore, it is
possible to select a best pair of working path and
backup path which consumes least wavelength for
reservation.